Air Force Research Laboratory|AFRL

Science and Technology for Tomorrow's Air and Space Force

Success Story

DR. MICHAEL HAAS RECEIVES FRITZ J. RUSS BIO-ENGINEERING AWARD

The Fritz J. Russ Bio-Engineering Award recognizes an outstanding individual who has made significant contributions in research, development, teaching, or management for at least 3 years. The selection of Dr. Michael W. Haas is a prime example of the bioengineering expertise and the quality research within the Human Effectiveness Directorate that supports the Air Force mission and the local community.

Air Force Research Laboratory
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Accomplishment

Dr. Michael W. Haas, a Human Effectiveness Directorate engineer, received the Fritz J. Russ Bio-Engineering Award during the annual banquet of the Institute of Electrical and Electronics Engineers of Dayton, Ohio. Dr. Haas' work in the Human Interface Technology Branch of the Crew System Interface Division represents a unique combination of bioengineering, systems engineering, and exceptional management for the advancement of bioengineering and Air Force objectives.

Background

Dr. Haas' accomplishments epitomize the guiding principle of his work—to understand the biological and psychological opportunities and constraints that underlie the optimal integration of humans and machines and then to develop the technology to capitalize on that understanding. One example is his application of synthetic spatial audio technology to enhance the perception of multi-channel communication. Dr. Haas' work in this area virtually assures the transition of spatial audio technology to the Airborne Warning and Control System (AWACS Block 40/45) communication system and to several ground-based tactical control facilities.

Dr. Haas made similarly exceptional contributions in his basic research program. His work enabled numerous improvements in flight control, navigation, and targeting by tailoring cockpit display modalities to the momentary sensory and attentional capacity of the users.

Additionally, Dr. Haas provided exceptional management leadership. His Virtual Air Commanders team was invited to participate directly in a series of interface evaluations that played a major role in the design of the Block 40/45 crew stations. His leadership yielded increased funding and led to new research and development opportunities.

Dr. Haas' contributions extend throughout the United States Air Force and into the local community. By leveraging area university resources, he generated several hundred thousand dollars in cost savings for the Air Force while providing a unique mentoring environment for graduate students.

Human Effectiveness
Awards and Recognition

Additional information

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